

**U.S. Army Corps of Engineers  
Guide Specifications Graphics for Civil Works**

**02378 GEOTEXTILES USED AS FILTERS**

Fig. 1 Correct Fabric Placement for Current Acting Parallel to Bank or for Wave Attack on the Bank

Fig. 2 Placement of Filter Fabric on Bank Subject to Streamflow Action

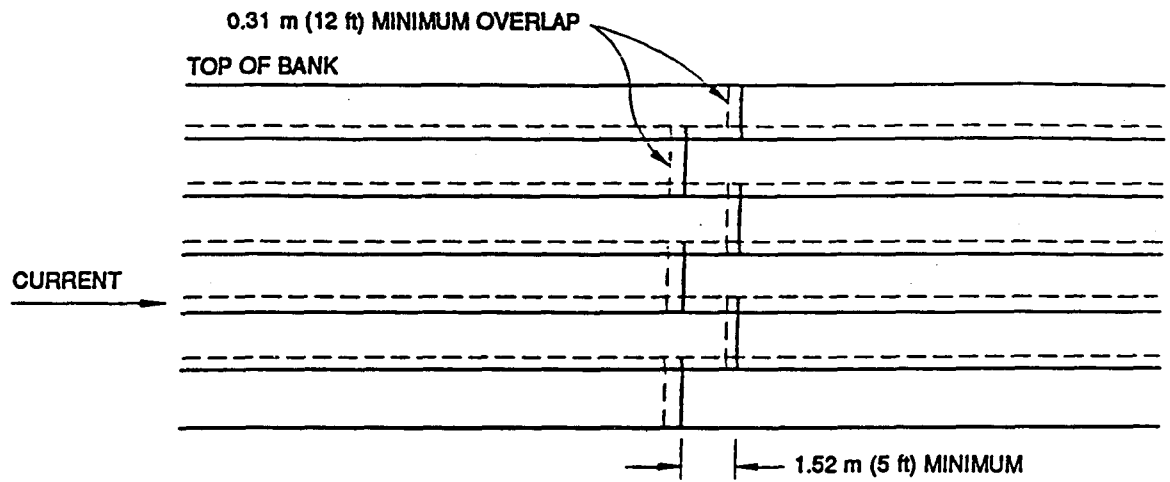
Fig. 3 Filter Fabric on Bank Subject to Wave Attack Showing Placement of Vertical-Wall Key Trench at Toe and Top Bank

Fig. 4 Key Trench Design Used When Soil Conditions do not Permit Construction of Vertical Walls

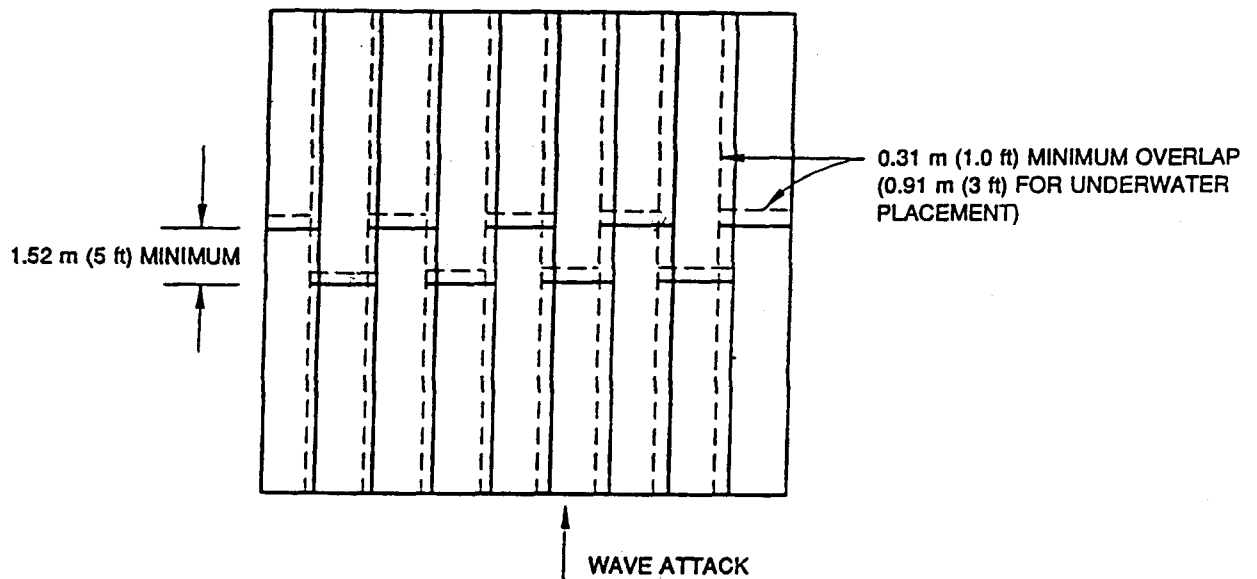
**15131 SUBMERSIBLE PUMP, AXIAL-FLOW AND MIXED-FLOW IMPELLER-TYPE**

Fig. 2 Bearing RTD Installation

Fig. 3 Axial Flow Pump and Mixed Flow Pump



a. Orientation for current acting parallel to bank



b. Orientation for wave attack normal to bank

Figure 1. Correct fabric placement for current acting parallel to bank or for wave attack on the bank

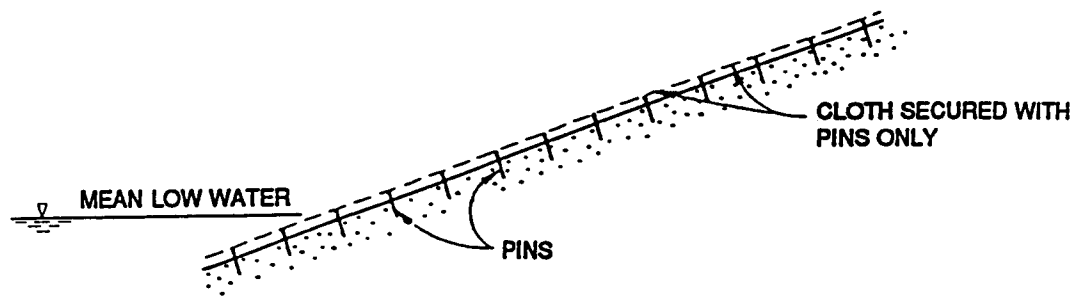


Figure 2. Placement of filter fabric on bank subject to streamflow action. Revetment materials have not yet been placed on the fabric.

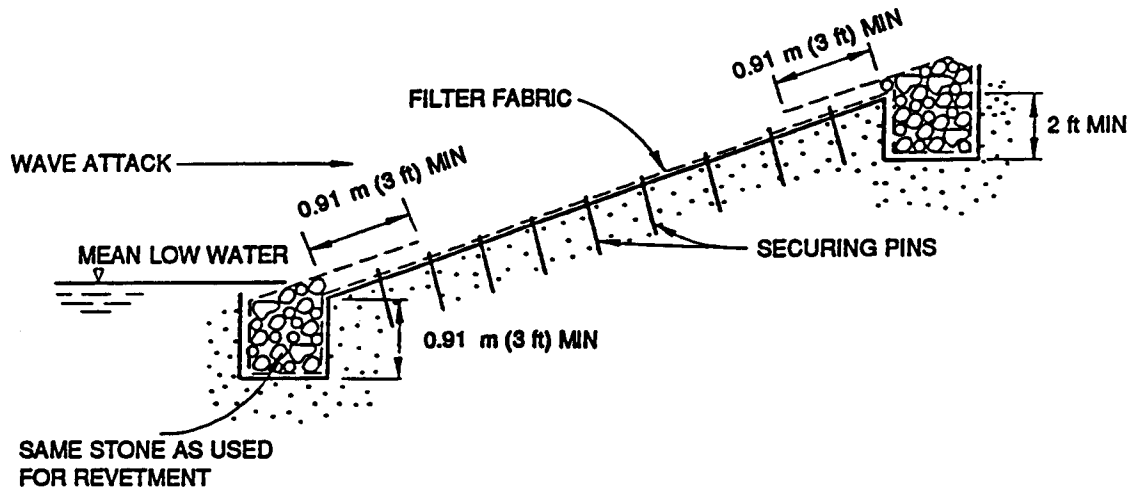


Figure 3. Filter fabric on bank subject to wave attack showing placement of vertical-wall key trench at toe and top bank. Revetment materials have not yet been placed on fabric.

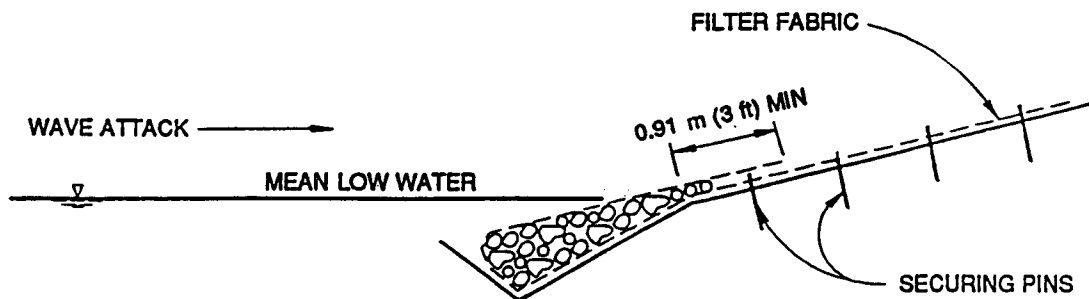
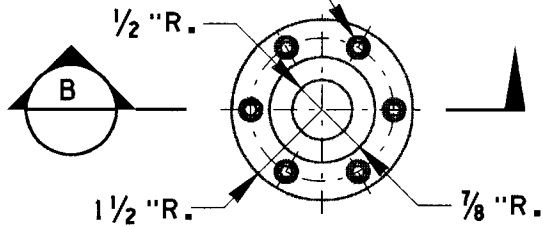


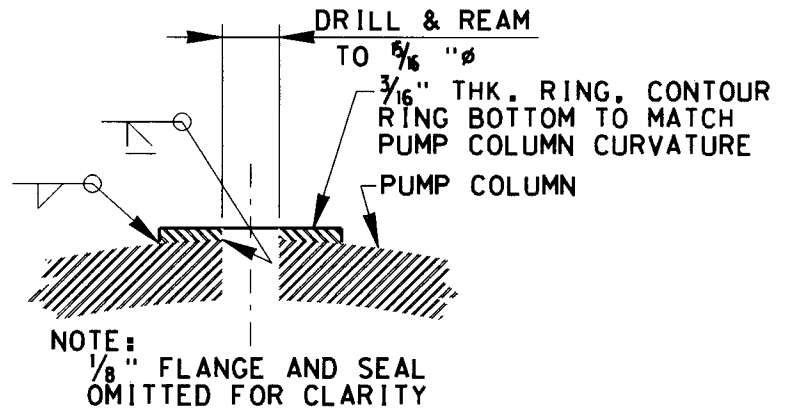
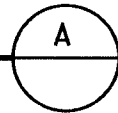
Figure 4. Key trench design used when soil conditions do not permit construction of vertical walls

DRILL & TAP FOR  
6- $\frac{1}{4}$ "  $\phi$   $\times$   $\frac{5}{8}$ " SOCKET  
HEAD STAINLESS  
STEEL CAP SCREWS



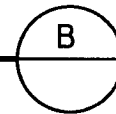
**SECTION**

SCALE: NONE



**SECTION**

SCALE: NONE



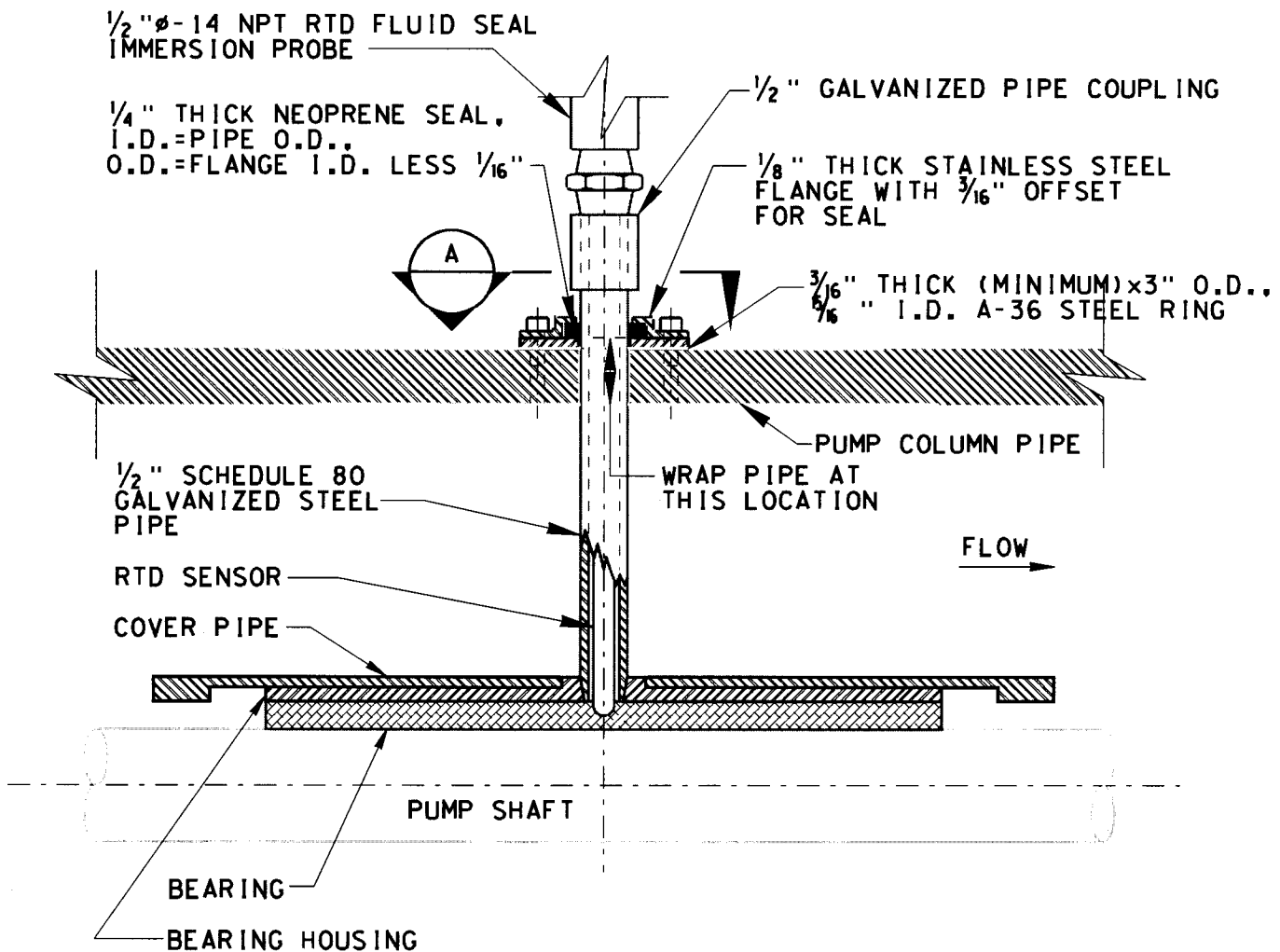
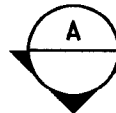
$\frac{1}{2}$ "  $\phi$ -14 NPT RTD FLUID SEAL  
IMMERSION PROBE

$\frac{1}{4}$ " THICK NEOPRENE SEAL,  
I.D.=PIPE O.D.,  
O.D.=FLANGE I.D. LESS  $\frac{1}{16}$ "

$\frac{1}{2}$ " GALVANIZED PIPE COUPLING

$\frac{1}{8}$ " THICK STAINLESS STEEL  
FLANGE WITH  $\frac{3}{16}$ " OFFSET  
FOR SEAL

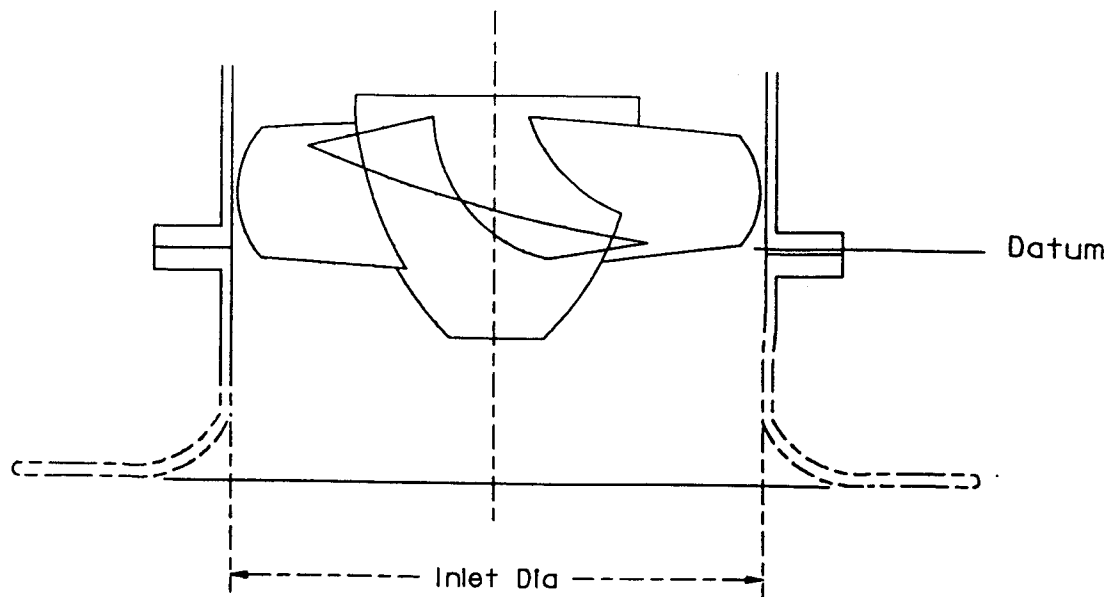
$\frac{3}{16}$ " THICK (MINIMUM)  $\times$  3" O.D.,  
 $\frac{1}{4}$ " I.D. A-36 STEEL RING



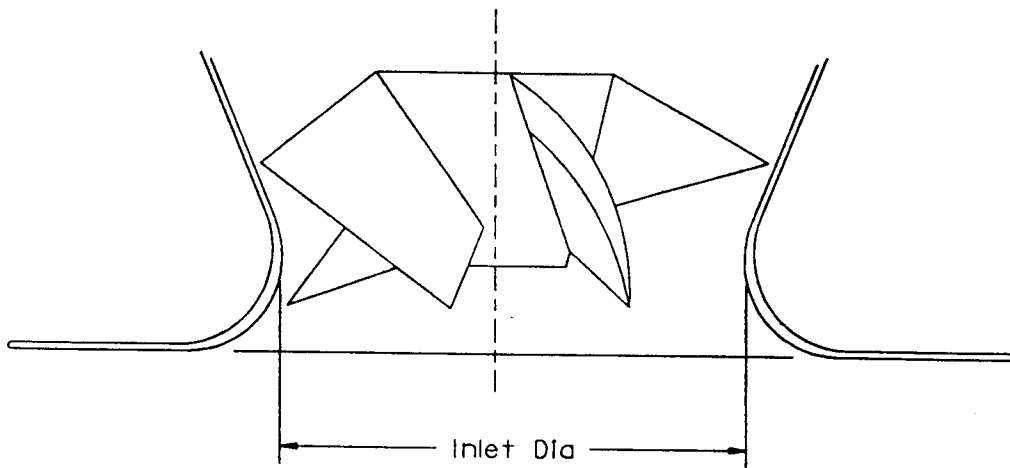
**BEARING RTD INSTALLATION**

SCALE: NONE

**FIGURE 2**



AXIAL FLOW PUMP



MIXED FLOW PUMP

FIGURE 3